

MAIL STOP Amendments
84595/CPK
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of
Inventor(s): Julie Baker, et al.

FOAMED POLYMER LAYERS AS
INKJET RECEIVERS

Group Art Unit: 1774

Examiner: Schwartz, Pamela R.

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Commissioner for Patents, Post Office Box 1450,
Alexandria, VA 22313-1450

Cheryl L. Betteridge

NAME

SIGNATURE

DATE:

Serial No.: 10/631,236

Filed: July 31, 2003

Commissioner for Patents
Alexandria, VA 22313-1450

DECLARATION BY THE INVENTOR

Sir:

I, Julie Baker, a citizen of the UK and having a place of
residence at 46 Dowding Way, Leavesden, Watford, Herts, WD25 7GA, UK,
hereby declare the following:

I am an employee of Kodak Limited, a UK company and
wholly owned subsidiary of Eastman Kodak Company, at Kodak's European
Research Laboratory situated in Cambridge, UK. I have worked at Kodak's
research laboratories for 20 years.

I was educated at Thames Valley University and have a first
class Chemistry degree (GRSC Part II). I am a named inventor on about
seventeen patent families, eleven of which are in the field of inkjet printing. I
have substantial direct laboratory experience in inkjet printing and consider
myself knowledgeable about the properties of inkjet coatings and the
experimental materials used in these coatings.

I am inventor of the invention described and claimed in the
present application (USSN 10/631,236).

I am aware of the rejections raised by the Examiner in the non-final office action of August 2, 2006.

I am familiar with the disclosure in DeBoer et al (US Patent No. 6,299,302) of an ink jet receiving element having a support, a receiving layer and an ink delivery layer. With regard to the receiving layer of the element described in DeBoer, a question has been brought to my attention as to whether there is sufficient polymer present to cause the layer to swell. The receiving layer of DeBoer is described as having clay, optionally colloidal silica, one or more hardening agents and one or more water-soluble binders, as essential components, where the water soluble binder is present in an amount of 2-15% by dry weight of the layer. Based upon my knowledge and experience in the field of ink jet printing, I can state that there would be no appreciable level of swelling of such a layer upon application of ink from an ink jet printer. As such, it can not in my opinion be fairly described as a swellable layer.

As the named inventor on cited reference EP 1060901 ("Inkjet ink image recording element"), I am familiar with the contents thereof. EP 1060901 (EP'901) is concerned with an image recording element for inkjet printing providing improved drytime and differential gloss (i.e. reduced difference in gloss between printed and non-printed areas). This was achieved by providing a base layer for the absorption of ink solvent and an ink receptive top layer in which it was essential to provide a gelatin and a humectant in order to demonstrate the described improvements. The top layer was capable of and intended to absorb image dye during printing. The base layer was capable of and intended to absorb ink solvent.

Since the top layer in EP'901 was a non-porous layer composed of hydrophilic polymer materials, it is my opinion that such a layer placed on top of a swellable porous foamed hydrophilic polymer layer according to the ink jet recording medium of the present application (USSN 10/631,236) would materially affect the basic and novel characteristics of the invention of enabling rapid ink absorption into the layer whilst maintaining image stability comparable to that achieved with a conventional non-porous receiver. This is because, the top layer of '901 is a non-porous polymer layer, which although

capable of absorbing dye will only do so slowly and will significantly reduce the rate of absorption of an applied ink within the layer and layers beneath.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, under Title 18 § 1001 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

Date: _____

Julie Baker



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Cheryl L. Betteridge

NAME

SIGNATURE

DATE:

Cheryl L. Betteridge
Jan 3, 2006

DECLARATION BY THE NAMED INVENTOR ON US 6,299,302


Sir:

I, Charles D. DeBoer, a US citizen of Rochester, NY, hereby
declare the following:

I was educated at Iowa State University in chemistry (Bs) and
at the California Institute of Technology in organic photochemistry (Ph.D.)
and worked for one year as a postdoctoral research scientist at Columbia
University, New York City. I am currently an employee of Eastman Kodak
Company having worked in the Research Labs of Eastman Kodak for 32 years.
I am a named inventor on about 120 patents, about 20% of which are in the
field of inkjet printing. I have substantial direct laboratory experience in inkjet
printing and consider myself knowledgeable about the properties of inkjet
coatings and the experimental materials used in these coatings.

I am co-inventor with Werner Fassler and Judith L. Fleissig,
and named as such, of the invention described and claimed in US Patent No.
6,299,302.

The main idea of the invention described in US Patent No.
6,299,302 was that large droplets of ink could provide small dots of image by
removing the majority of the ink droplet before viewing. There was only one



Example, done, using a clay and silica receiving layer and a 4 micron thick hydrophilic polymer delivery layer. The resulting inkjet receiving element was definitely not porous, due to the non-porous top delivery layer.

Our inclusion of a “blowing agent” in the laundry list of possible additives to the layer ink receiving layer of US Patent No. 6,299,302 was prophetic only, without any experimental backup. It is my opinion, however, that addition of a blowing agent to the formula used in the Example of US Patent No. 6,299,302 would probably have no effect at low levels, and at high levels would probably cause bubbles and non-uniformities on a scale at least 10 times larger than the size of inkjet droplets.

The ink receiving layer is described generally as comprising clay, one or more hardening agent and optionally colloidal silica with one or more water-soluble binder where the water soluble binder is present in an amount of 2-15%, preferably 5-12% by dry weight of the layer (See Table 1). The Example used 8.7% of hydroxypropyl methyl cellulose binder. Based upon my knowledge and experience in the field of ink jet printing, I can state that there would be no appreciable level of swelling of such a layer upon application of ink from an ink jet printer. As such, it can not in my opinion be fairly described as a swellable layer.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like are punishable by fine or imprisonment, under title 18 § 1001 of the united states code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Respectfully submitted,

Date: _____

Charles D. De Boer